We claim:

1. A support matrix for integrated semiconductors, comprising:

a frame having at least one bonding channel with an edge formed therein, said frame further having a groove formed therein along said edge of said bonding channel;

conductor track structures disposed on said frame, said groove formed in said frame functioning as a barrier for preventing a flow of a flowable material from said bonding channel onto said frame and onto said conductor track structures; and

contacts, selected from the group consisting of bonding leads and wires, connected to said conductor track structures and disposed in said bonding channel, said contacts used for connecting said conductor track structures to an integrated circuit.

2. The support matrix according to claim 1, wherein said barrier is disposed on all sides of said bonding channel and completely surrounds said bonding channel.

3. The support matrix according to claim 1, wherein said frame has a surface remote from said bonding leads and said

barrier is formed in said surface of said frame which is remote from said bonding leads.

4. The support matrix according to claim 1, wherein the flowable material is silicone for forming structures on the support matrix.

5. The support matrix according to claim 1, wherein said barrier has a region with a parting agent disposed thereon for repelling the flowable material.

6. A support matrix for integrated semiconductors, comprising:

a frame having at least one bonding channel with an edge formed therein;

conductor track structures disposed on said frame, said frame and said conductor track structures having a groove formed therein along said edge of said bonding channel, said groove functioning as a barrier for preventing a flow of a flowable material from said bonding channel onto said frame and onto said conductor track structures; and

contacts, selected from the group consisting of bonding leads and wires, connected to said conductor track structures and disposed in said bonding channel, said contacts used for

connecting said conductor track structures to an integrated circuit.

7. The support matrix according to claim 6, wherein said groove is formed to extend into said bonding leads.

8. A method for producing a support matrix for integrated semiconductors, which comprises the steps of:

providing a frame having conductor track structures disposed thereon, at least one bonding channel formed in the frame, and bonding leads disposed in the bonding channel and connected to the conductor track structures for connecting the conductor track structures to an integrated semiconductor; and

forming at least one groove along an edge of the bonding channel for preventing a flow of a flowable material from the bonding channel onto the frame and onto the conductor track structures.

9. The method according to claim 8, which comprises:

applying a resist mask over the frame; and

etching the groove at the edge of the bonding channel.

10. The method according to claim 8, which comprises forming the groove at the edge of the bonding channel using an embossing process.

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COMBINED DECLARATION AND POWER OF ATTORNEY
IN ORIGINAL APPLICATION

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SUPPORT MATRIX WITH BONDING CHANNEL FOR INTEGRATED SEMICONDUCTORS, AND METHOD FOR PRODUCING IT

described and claimed in the specification bearing that title, that I understand the content of the specification, that I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve month prior to this application, that I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application under 37 C.F.R. 1.56a, and that no application for patent or inventor's certificate of this invention has been filed earlier than the following in any country foreign to the United States prior to this application by me or my legal representatives or assigns:

German Application No. 100 34 006.7, filed July 7, 2000, the International Priority of which is claimed under 35 U.S.C. §119.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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